



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/553,556

10/19/2005

Jeroen Hubert Christoffel Jacobus Stessen

NL 030410

4058

24737

7590

06/27/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

NATNAEL, PAULO S M

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

06/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/553,556	<b>Applicant(s)</b> STESSEN ET AL.	
	<b>Examiner</b> PAULOS M. NATNAEL	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 is/are allowed.
- 6) ☒ Claim(s) 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 101*

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim **21** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 21 defines a computer program product directly loadable into the internal memory of a digital computer, comprising software code... embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason, i.e., “When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized”. That is, the scope of the presently claimed computer program product can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

### *Allowable Subject Matter*

2. Claims **1-20** are allowed.
3. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose the claimed method for combined sampling rate

conversion and gain-controlled filtering of a digital signal, where an input signal is converted into a filtered output signal, comprising the steps of:

- filtering the input signal with a first polyphase filter yielding a first intermediate signal; filtering the input signal with a second polyphase filter yielding a second intermediate signal; multiplying said second intermediate signal with a gain control signal yielding a third intermediate signal; and adding said third intermediate signal to said first intermediate signal yielding said output signal, as in claim 1;

Device for combined sampling rate conversion and gain-controlled filtering of a digital signal, where an input signal is converted into a filtered output signal, comprising:

- a shift register comprising a multiplicity of registers that are jointly controlled by a shift enable signal for storing consecutive values of said digital signal,
- circuitry for multiplying the output of each register with filter coefficients of a first type and summing the products yielding a first intermediate signal,
- circuitry for multiplying the output of each register with filter coefficients of a second type and summing the products yielding a second intermediate signal,
- circuitry for multiplying the second intermediate signal with a gain control signal yielding a third intermediate signal,
- circuitry for adding the first and third intermediate signals yielding said output signal, and

- means to cyclically change the filter coefficients of the first and second type in response to a phase control signal, as in claim **11**.

Device for combined sampling rate conversion and gain-controlled filtering of a digital signal, where an input signal is converted into a filtered output signal, comprising:

- a shift register comprising a multiplicity of registers that are jointly controlled by a shift enable signal for storing consecutive values of said digital signal;
- circuitry for forming the differences between the outputs of adjacent registers, for multiplying these differences with filter coefficients of a first type and for summing the products and the output of at least one register yielding a first intermediate signal;
- circuitry for multiplying said differences with filter coefficients of a second type and for summing the products yielding a second intermediate signal;
- circuitry for multiplying the second intermediate signal with a gain control signal yielding a third intermediate signal;
- circuitry for adding the first and third intermediate signals yielding said output signals; and
- means to cyclically change the filter coefficients of the first and second type in response to a phase control signal, as in claim **15**;

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAULO M. NATNAEL whose telephone number is (571)272-7354. The examiner can normally be reached on 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PAULOS M. NATNAEL/  
Primary Examiner, Art Unit 2622

June 18, 2008